HSML Consumer Math Course Preparedness Test

High School Math Live wants parents to be well informed. We want your student to be placed in the appropriate course so that they will be successful and challenged while learning the beauty of mathematics. The questions we have below will be a good indicator to whether your student is ready for Consumer Math. Completing approximately 80% correctly is a good sign that your student is ready for this course. If your student struggles with the majority of the questions, then you and your student will need to discuss your plans. Will your student simply need to allow more time for math this year? Will your student need a private tutor? Will your student put forth the effort needed in order to be successful? We cannot answer these questions for you, but we want you to know prior to the school year what skills are needed for this course.

The answer key is provided at the end of the document. We ask that you sit down with your student and discuss their work. It is very important that you are aware of their results so that informative decisions can be made. After completing these problems, if you find that there are concepts that your student has not mastered, our Brush Up on Math workshops would be a great way to get targeted help on those concepts. If you feel that input from an instructor of the course would be helpful, please scan their work and answers, making sure that the answers are in the same order as the problems on the document. The scan should be emailed as a single PDF document to support@highschoolmathlive.com.

Please view our website, www.highschoolmathlive.com, to read other details including what makes a successful HSML student and online learner.

For the following questions, no calculator should be used.

Part 1. Simplify.

1. $31-78$
2. $-5-14$
3. $-3(x-4)+2(x+5)$
4. $(5x^2-x+2)-(x^2-4x-7)$
5. $\sqrt{75}$

Part 2. Solve the following equations.

1. $5(a-12)=8(3a+2)$

2. $5r-6=29$

3. $15x+2=3x+6$

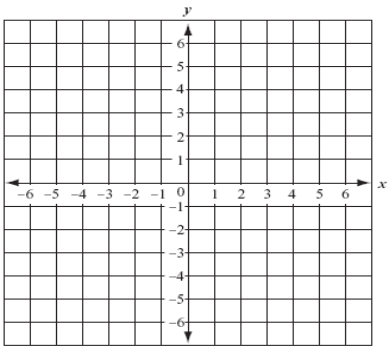
4. $5(x+3)=15+2(2x-1)$

5. $x^2+3x-54=0$

6. $7x^2-30x=-8$

Part 3. Plot the following points on the provided grid.

A (-2, -1) B (4, -5) C (-6, 3) D (3, 2)



You may use your calculator for the remaining questions.

Part 4. Percentages/Money

1. Write $875.48 in word form.

2. Round to the nearest cent: $138.7836

3. Find the percentage and round to the nearest cent: 8.25% of $76

4. The discount is 35 percent of the selling price of $70. Find the discount.

5. Find the average and round to the nearest cent: $37.50, $44.50, $39.65, $34.25, $15.61, $11.22

6. If your telephone bill averaged $35.45 a month last year, what was your total bill for the year?

7. Find the elapsed time from 9:15 AM to 6:25 PM.

8. Calvin Miller makes a car payment of $214.50 every month. His car loan if for 5 years. How much will he pay in 5 years?

9. Lincoln Norris bought 3 boxes of cereal at $3.79 each, a roll of paper towels for $1.78, and 2 pounds of margarine at $1.28 a pound. How much change would Norris get back from $20.00 if there was not sales tax?

10. The Drama Club sold $1,345 worth of tickets for their production of *Oliver*. Adult tickets sold for $6.75 per ticket, while children's tickets sold for $3.50. If there were 245 tickets sold in all, how many adult tickets were sold?

11. If a 10 percent down payment is required to finance the purchase of a $24,897 car, about how much money would you need for a down payment?

Answer Key:

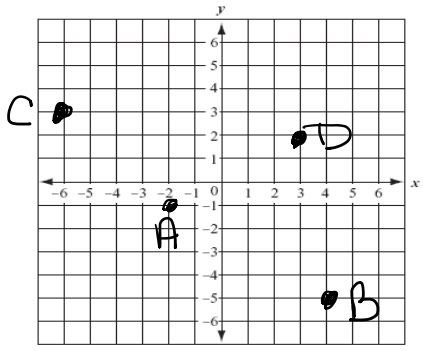
Part 1

1. -47
2. -19
3. $-x+22$
4. $4x^2+3x+9$
5. $5\sqrt{3}$

Part 2

1. -4
2. 7
3. 1/3
4. -2
5. 6, -9
6. 2/7, 4

Part 3



Part 4

1. Eight hundred Seventy-Five Dollars and Forty-Eight cents.
2. $138.78
3. $6.27
4. $24.50
5. $30.46
6. $425.40
7. 9 hours 10 minutes
8. $12, 870.00
9. $4.29
10. 150 adult tickets (95 children tickets)
11. $2489.70